

Drinking Water Initiatives/Priorities

Water 2050 Forum

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Illinois EPA

April 16, 2015

Proposed Source Water Protection Planning Rules



American Water Works Association

The Authoritative Resource on Safe Water®

ANSI/AWWA G300-07
(First Edition)

AWWA Standard

Source Water Protection



Effective Date: July 1, 2007
This edition approved: Jan. 21, 2007
Approved by American National Standards Institute: April 20, 2007

628.16
AWWA
Std. G300

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Source Water Protection

<http://dx.doi.org/10.5991/OPF.2012.38.0016>

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AWWA Standard Supports Utility Efforts to Protect Source Water

Drinking water utilities can turn to AWWA Standard G300 as the definitive standard for source water supply protection. Now an operational guide provides further support. **BY CHI HO SHAM, SHARON C. LONG, AND RICHARD W. GULLICK**

ONE OF AWWA'S MAIN GOALS is to help water utilities evaluate and improve their water quality, operations, maintenance, and infrastructure. Several AWWA programs and publications—including standards—support this mission. For more than 100 years, AWWA has produced peer-reviewed standards for materials and processes to help water and wastewater utilities and their service providers meet customer, investor, and government regulator expectations. AWWA standards, which are American National Standards Institute (ANSI) approved and recognized

worldwide, are intended to improve overall utility operations and service.

MANAGEMENT STANDARDS

Recently, AWWA developed the Utility Management Standards program (G Series Standards) to assess service quality and management efficiency based on recognized best practices. Through established standards and formal recognition by professional organizations, the program promotes improvements in service quality and efficient management.

The utility management standards address utility managers' widespread need for consistency and reliability in knowing what's expected in utility management and operation. These standards are valuable resources regarding increased scrutiny concerning accountability and the difficult economic realities of an aging infrastructure, changing water demand, and a shrinking workforce.

The utility management standards are designed to cover the principal activities of a typical water or wastewater utility. To date, standards have been developed for

- Water Treatment Plant Operations and Management, G100-11
- Distribution Systems Operation and Management, G200-09
- Source Water Protection (SWP), G300-07
- Utility Management System, G400-09

- Business Practices for Operation and Management, G410-09
- Communications and Customer Relations, G420-09
- Security Practices for Operation and Management, G430-09
- Emergency Preparedness Practices, G440-11

It's anticipated that additional topics will be added, including wastewater utility-specific topics.

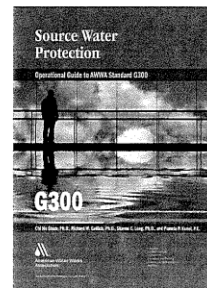
The utility management standards are developed according to a formal, ANSI-recognized, AWWA-managed process. This is accomplished using volunteer committees to establish standard practices in a uniform and appropriate format.

SOURCE WATER PROTECTION

The AWWA Standard G300, Source Water Protection, is a drinking water utility's definitive standard for protecting its drinking water supply source(s). Effective on July 1, 2007, AWWA G300 outlines the components of a successful SWP program and requirements for meeting the standard.

SWP program objectives are to maintain, safeguard, and improve the quality of a given source water. The program helps utilities achieve numerous benefits, which serve as incentives for developing and implementing SWP activities. Potential incentives include

- greater public health protection, especially for sensitive subpopulations,



35 Ill. Adm. Code 601.101

- *Assure that all persons served by community public water supplies receive water which is safe in quality, clean, adequate in quantity of satisfactory mineral character for ordinary domestic consumption*

Each CWS must have a source water protection plan (35 Ill. Adm. Code 654 – Subpart E)

- Vision statement - Section 654.510
- Source water assessment - Section 654.515
- Objectives – Section 654.520
- Action Plan – Section 654.525

Vision Statement

- The CWS' policy and commitment to protecting source water
- Explanation of the CWS resources and barriers to protecting source water
- Names of the individuals who developed the vision statement

Source Water Assessment

- Statement of the importance of source water
- List of supplies that obtain water from this supply
- Delineation
- Report on the quality of source water and finished water
- ID of potential contamination sources
- Susceptibility analysis
- Explanation of efforts to protect source water

Source Water Protection Plan Objectives

- The source water protection plan must contain a list of the community water supply's objectives to protecting source water
- These objectives can include meeting the requirements of any of the Sections in this Subpart, including developing a vision statement or performing a source water assessment
- Objectives may also address the specific problems or issues identified in the source water assessment, and should consider current and potential future issues

Action Plan

- Descriptions of all projects, programs, and activities developed by the community water supply to meet the objectives listed in Section 654.520
- The community water supply's schedule for implementing projects, programs and activities
- Identification of the necessary resources to implement the plan
- Identification of the potential problems/obstacles for implementing the plan

Submission

- A community water supply that first commenced construction after the effective date of this section must develop and submit a source water protection plan simultaneously with the construction permit application
- A community water supply in existence of the effective date of this section must develop and submit to the Agency for approval a source water protection plan within the following time frame after the effective date of this section:
 - Within 2 years for CWS serving a population greater than 50,000 persons;
 - Within 3 years for CWS serving a population greater than 3,000 but less than 50,000 persons; or
 - Within 5 years for CWS serving a population less than 3,000

Evaluation and Revision

- The community water supply shall review and revise as necessary its source water protection plan no less than every five years
- If the community water supply revises its source water protection plan, it must submit the plan to the Agency for approval pursuant to Section 654.535 of this Subpart

Water Loss Accounting Initiative

- Water loss accounting and control is a key business practice to assuring sufficient quantity of drinking water
- IEPA and partners began promoting this practice through outreach and training
- Partners
 - Center for Neighborhood Technology
 - Natural Resources Defense Council
 - Illinois Section AWWA
 - Illinois Rural Water Association
 - Chicago Metropolitan Agency for Planning
 - Metropolitan Planning Council
 - Environmental Resource Training Center
 - IDNR Office of Water Resources

Water Loss Accounting Initiative

- ISAWWA and IRWA have been training community water supply officials on the AWWA M-36 tool – class is free of charge for 2 officials/CWS.
- 25 Sessions since December 2014
- 189 Officials trained
- Next step is to offer technical assistance in using CWS-specific data – focus on small (<10,000) and economically disadvantaged CWS who have gone through training.

Water Loss Accounting Initiative

- Identify CWS that have used the M-36 auditing tool that would be willing to share their results and experience
- Extent and cost of water loss
- What was done with results
- These become case studies that promote the practice

Water Loss Accounting Initiative

- Assess what has been learned and adjust promotion approaches as needed
- Prepare a summary report and recommendations – policies and practices to improve understanding of water loss status and opportunities to accelerate adoption of water loss accounting

State Revolving Loan Fund

- FFY14 \$196 million in projects
- Common Projects:
 - Water main lining/rehab/replacement
 - Water meters
- Water loss control projects are eligible
- MPC/IEPA Survey
 - Streamlining

